



Bulletin of the Government Museum, Chennai

Tourism Endowment Lecture

**Roman Coin Finds In South India-An
Interpretation From The Viewpoint of Roman
Numismatics and Economy**

by

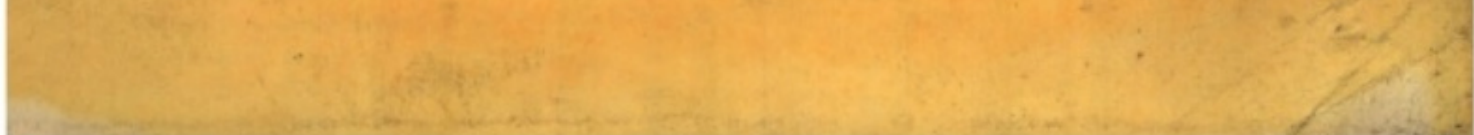
Dr. S. Suresh, M.A., M.Phil., Ph.D.

**Tamilnadu State Convener, Indian National Trust for Art and Cultural Heritage
(INTACH) and Academic Director, Bharat Travel Services, Chennai.**

Edited and

Published by

**Dr. T. S. Sridhar, I.A.S.,
Principal Secretary & Commissioner of Museums,
Government Museum, Chennai-600008.**







Bulletin of the Government Museum, Chennai

TOURISM ENDOWMENT LECTURE

**Roman Coin Finds In South India - An
Interpretation From The Viewpoint Of Roman
Numismatics And Economy**

by

**Dr. S.Suresh, M.A., M.Phil., Ph.D.,
Tamil Nadu State Convener, Indian National Trust for
Art and Cultural Heritage (INTACH) and Academic
Director, Bharat Travel Services, Chennai.**

**Edited and
Published by**

**Dr.T.S.Sridhar, I.A.S.,
Principal Secretary /
Commissioner of Museums,
Government Museum,
Chennai-600008.**

Dr. T.S. Sridhar, I.A.S.
Principal Secretary/
Commissioner of Museums,
Government Museum,
Egmore, Chennai - 600 008.



Telephone : 044 - 2819 3778
Fax : 044 - 2819 3035

December 23, 2010

FOREWORD

The Tourism Endowment Lecture was instituted in the Government Museum, Chennai, by Maurya Travels, Chennai. Several eminent scholars have delivered lectures under this series. This Bulletin is being brought out on the occasion of the Tourism Endowment Lecture - 2010. The lecture recalls to our mind the ancient period of Roman trade with south India between 100 B.C.E. and 400 C.E. The Indo-Roman contacts started purely for commercial reasons but gradually extended to cultural and diplomatic exchanges. The most significant evidences of these contacts are the Roman coins discovered in scores of sites throughout South India. The Government Museum, Chennai has the biggest collection of these coins outside Europe. The lecture on "**ROMAN COIN FINDS IN SOUTH INDIA - An Interpretation from the Viewpoint of Roman Numismatics and Economy**" is being delivered by Dr. S. Suresh, a renowned Archaeologist and Numismatist who has done extensive research on Indian architecture and art including Numismatic Art.

I thank Dr. S. Suresh for providing the lecture scripts prepared by him well in advance to enable us to release the bulletin on the occasion of his lecture. I am confident that this slim volume will be very useful to Historians, Archaeologists and Numismatists and all others interested in India's rich heritage and culture.

A handwritten signature in dark ink, appearing to read "T.S. Sridhar".

Dr. T.S. Sridhar

ROMAN COIN FINDS IN SOUTH INDIA - AN INTERPRETATION FROM THE VIEWPOINT OF ROMAN NUMISMATICS AND ECONOMY

Introduction

Despite the efforts of numerous scholars for nearly two centuries, the commercial, cultural and diplomatic ties between the kingdoms of ancient India, mainly South India, and the Roman world remain vague in the minds of many contemporary archaeologists and historians and are rarely included in university courses on Roman history and art. These contacts are, however, the most significant examples of globalization and cultural cross-fertilization during antiquity. Thousands of Roman merchants and their African and Arabian representatives came to India, often accompanied by artisans and craftsmen from the Mediterranean lands. Many of them even settled in India, adjusting themselves to the Indian climate and lifestyle.

The Rome-India contact undoubtedly began for commercial reasons but in course of time, it gradually extended to cultural interaction and in a lesser extent, the exchange of diplomatic embassies. But the trade contacts were the most important and visible. The contact began around the second century B.C.E. and reached its zenith during the rule of the Roman emperors Augustus (27 B.C – 14 C.E.) and Tiberius (14-37 C.E.). The links continued during the reigns of the emperors Gaius or Caligula (37-41 C.E.), Claudius (41-54 C.E.) and Nero (54-68 C.E.). Towards the end of the first century C.E., there was a slow but steady decline in the trade. During the subsequent centuries, specially after the creation of the Tetrarchy by the Roman emperor Diocletian in 293 C.E. and the consequent division of the Roman Empire into the East and the West, the trade declined further until it ended around the seventh century C.E.

The Romans came to India in search of Indian gemstones, silk, cotton, ivory, spices, sandalwood and peacocks. Indian gemstones, mainly beryl, and Indian spices, especially pepper and cardamom, were in great demand in the

Roman markets. In return, India obtained coral, wine, olive oil and metals such as gold, silver and copper from Rome. The metals imported from Rome were mostly in the form of coins and medals.

Ancient literary works, both Graeco-Roman and Tamil, throw welcome light on the long and interesting story of the Rome-India links. The principal Graeco-Roman works dealing with the trade include *Naturalis Historia* or *Natural History* by Pliny (77 C.E.), the *Periplus Maris Erythraei* by an anonymous author (80-89 C.E.?) and the *Geography* by Claudius Ptolemy (150 C.E.). Ancient Tamil poems like the *Ahananuru* and the *Purananuru* contain limited references to the trade.

As most of the exports from India were perishable goods such as spices, textiles and peacocks, archaeological evidences for the trade within the Roman territories are scarce. Most of the archaeological finds have been reported from India, mainly South India. Many of these finds are either unpublished or else, barely published in little-known local journals and books, remain mostly unknown to scholars outside India. Not surprisingly, European and American archaeologists, unaware of these discoveries, tend to underestimate the volume and historical importance of the trade.

Since the late-eighteenth century, archaeologists and treasure-diggers have unearthed thousands of ancient Roman coins, sometimes in association with Roman jewellery, in scores of sites throughout South India. Besides Roman coins, Roman ceramics have also been discovered in many places in India. Among such finds are the amphora jars--long conical jars with handles on both sides. These jars came to India, mostly filled with Roman wine and olive oil. Such jars are found mostly in western and southern India. The terra sigillata-- a class of ancient pottery including mould-made decorated vessels as well as undecorated wheel-made ones produced in Italy--have been found in a few sites such as Arikamedu and Alagankulam in southeastern India. Other types of Roman terracotta objects such as lamps and icons are very few in India. A few such lamps have been found in Arikamedu. Roman glass including raw glass, glass vessels and beads were imported into India. Among these objects, the

glass vessels are widely known. These include small ribbed glass bowls reported from Daranikota in Andhra Pradesh and Arikamedu in Pondicherry, both in southern India.

Earlier studies on the Roman coin finds in India

The Roman coin finds in India constitute the largest and most significant source for the study of the Rome-India contacts. Interest in the study of these coins dates back to the early nineteenth century. The very presence of these coins in the remote sites of India appeared strange and unusual to the nineteenth century scholars because such finds, that too in large numbers, had never been recorded earlier. Hence, the attention of the early scholars was confined to simply reporting the finds. No attempt was made to analyse the historical significance of the coins. Thus, most of the early published accounts are descriptive notices of the finds. These notices, scattered in various obscure journals and museum reports, often constitute the sole evidence, published or otherwise, for many of the early finds.

The nineteenth century authors did not identify many of the features unique to the Roman coins found in India. Such features include the presence of imitations among the finds and the countermarking of a few of the coins with minute symbols. The significance of the slash marks on the Roman coins in India, was, for the first time, analysed in detail by G.F.Hill in his famous article on the aurei find from Pudukkottai in Tamil Nadu (1898) which, till date, is the largest slashed aurei hoard in the whole of India.

The utilization of the Roman numismatic finds in India for the study of the pattern of Indo-Roman trade was first attempted by Bishop Caldwell (1851). Basing his observations on a study of the very large Kottayam (Kerala) hoard, he made a pioneering attempt to trace the route adopted by the Romans to reach the Malabar ports. He also hinted at the use of the Roman coins as 'money' by the ancient Indians. It was, however, Robert Sewell (1904) who systematically classified all the Roman coins found in India, known to him, emperor-wise and concluded that the trade began under Augustus (27 B.C.-14 C.E.), reached its peak under Nero (54-68 C.E.) and then began to slowly decline until the time of

Caracalla (198-217 C.E.) but was revived slightly in the fourth-fifth centuries C.E. Most of the later scholars including E.H. Warmington (1928, 1974), T.G. Aravamuthan (1942), Mortimer Wheeler (1951, 1954), P.L. Gupta (1965), S. Sankaranarayanan (1980) and Peter Gokhale (1991) have accepted most of Sewall's observations in the light of additional evidences. David W. MacDowall (1991, 1996), however, differs from all the other scholars by asserting that the height of the Indo-Roman trade was after Nero and that all the Roman Republican and Julio-Claudian coin finds in India were exported from Rome after 70 C.E.

Most of the studies, by both Indian and European scholars, on the Roman coins found in India have hitherto been from the perspective of the history and economy of India. The present study is a modest attempt to analyze these coin finds from the standpoint of Roman numismatics and economy. This Paper attempts to correlate the earlier studies on the subject with my recent research, in the museums in U.K. and France ((2010), aided by a study grant from the Italian Embassy Cultural Centre, New Delhi.

Chronology, distribution pattern and composition of the finds

The Roman coins found in India range in date from the Republican (second-first centuries B.C.) down to the Byzantine (fifth century C.E.) periods. There are two major areas of concentration of the finds—the Coimbatore region in Tamil Nadu and the Krishna valley in Andhra Pradesh, both in South India. The adjoining Karnataka-Kerala regions have yielded a moderate number of finds. There is a paucity of such numismatic finds on the West coast specially in the Maharashtra-Gujarat region. The finds from Central, Northwestern, Northern and Eastern India are also scarce (Map-1). Further, each of the finds from the latter regions contain very few coins, compared to the large hoards in the South.

In different parts of India, the Roman coins occur in various contexts. The majority of the finds occur as hoards, usually in a spherical earthenware pot. Rarely, the hoard is found in a brass or bronze vessel. While in some parts of the

stationed, in India, the hoards appear to be the result of some panic or fear of a sudden attack or war or some natural calamity which forced the people to hide their wealth, away from nature's fury and human attacks. The cluster of hoards in the neighbourhood of Coimbatore may have been hidden or lost by travelers threatened by the brigands operating in the area which, due to its hilly terrain and its being the 'border' of the Sangam Chola, Sangam Chera and Sangam Pandya kingdoms, provided ideal 'escape- routes' to the bandits. Surface finds of single Roman coins are also often reported from South India. A few sites like Chavadipalaiyam and Coimbatore, again in South India, have yielded Roman ~~issues within megalithic graves~~ ~~Roman coins from archaeological excavations~~ are not as common in India as in the Roman Empire sites. In certain parts of India and adjoining regions, Roman coins are sometimes found in a 'ritualistic' context, a context hardly known in the Roman territories. For instance, the Roman coin finds from Ahin Posh, Manikyala and some more sites in the Pakistan-Afghanistan region are part of ritualistic deposits within Buddhist *stupas*. The use of the Roman coins as ritual offerings is comparatively rare in South India. However, it has recently been reported that a few sites such as Bavikonda and Totlakonda in Andhra Pradesh have yielded Roman coins within the precincts of Buddhist monuments. Again, Roman coins have been found below the foundations of an old Hindu temple at Nellore (Andhra) and within a Hindu temple at Saidapet (Chennai). Many published accounts, however, simply do not distinguish between coins found within the compound of a temple or monastery viz. ~~coins intended for future use, and those found purposely~~ deposited below a temple or within a *stupa* , as a gift to the shrine, never to be used again.

Coming to the export of Roman coins from the empire, as the Romans traded with many kingdoms spread throughout the then known world, their coins have been recurrently discovered in hundreds of sites in Europe, Africa and Asia. These coins thus acquired the status of a multinational currency, comparable to the present-day U.S. dollars that are accepted as valid legal tender in several commercial establishments in Singapore and Europe. There are wide differences

in the metal, denomination, wear-condition and quantity of the Roman coins found in the different regions. These 'differences' may be explained by the variations in the 'nature', 'volume' and 'period' of the Roman trade in each of those territories. The varying monetary policies of the different Roman emperors and the consequent changes in the metallic composition and metrology of their coins had a direct bearing on the export of these coins to Free Germany, Scandinavia, Eastern Europe, Arabia as well as India and Sri Lanka.

The composition of many of the Roman coin hoards in India is quite different from those within the Roman empire and territories adjoining the empire. This is not surprising because the quantum and types of Roman coins circulating in the empire was certainly more than those in India. As regards the specific types of Roman coins found in India, two types predominate, both in gold and silver—the 'Gaius and Lucius Caesars reverse' type of Augustus and the 'Pontif Maxim' type of Tiberius. The high incidence of these two varieties may either be purely accidental or at best, be attributed to the easy availability of these common types to the Western traders visiting India. These types do not seem to have been specially minted for the India trade because they have been recovered, in considerable numbers, throughout the Roman empire. Also, there is no reason to believe that there was a special preference for these two types by the Indians themselves.

The earliest Roman coins to reach India are of silver. All the Republican issues found in India are of silver. This can be attributed to the fact that these silver coins formed the principal denomination of the Republican monetary system. The gold coins were seldom minted and, at any point of time, did not form part of the regular Republican coinage. They were occasionally struck for use by the military and are now very rare even in Europe.

During the period of civil strife, following the assassination of Julius Caesar in 44 B.C., gold coins were minted by many of the contenders of the political power, mainly Mark Antony and Octavian. The gold issues of Octavian (later Augustus) eventually evolved into the first Roman imperial gold coinage. These developments are clearly reflected in the Roman coin finds in India. In

India, among the Augustan and Tiberian finds, gold coins are seen but silver ones predominate. From the time of Gaius, however, there is a gradual increase in the number of gold issues vis-a-vis the silver ones. One reason for this is that during the reigns of Gaius, Claudius and Nero, Roman gold coins were minted in larger quantities than the silver ones. It is also clear that as soon as the Roman gold began to reach India, the Indians exhibited a preference for the gold issues even before Nero's currency reform of 64 C.E. which reduced the purity of the denarius and the weight of the aureus. It is pertinent to note that the heavy pre-64 C.E. aurei are seen in very large quantities compared to the later issues in India, even in hoards with a *terminus post quem* (TPQ) of the late first or second centuries C.E. This is neither because the Indians, who were mainly concerned with the bullion value of the Roman issues, desired to acquire the heavier aurei, nor because the Roman traders themselves preferred to trade in the old heavy aurei in India for a profit instead of the new lighter ones, both of which had the same nominal value in the Roman market. On the other hand, as the Indo-Roman trade reached its peak much before 64 C.E., the majority, if not all, of the pre-64 C.E. aurei reached India before the reform of 64 C.E. Thus, at no point of time, there was any special preference for the heavier aurei by the Indian or the Roman merchants. Due to economic problems, many of Nero's successors introduced currency reforms that consistently reduced the weight and the purity of the coins. This, by the time of Caracalla (198-217 C.E.), the denarius contained barely 40% silver. This may further explain the Indians' growing preference for the gold issues instead of the lighter silver coins of doubtful purity. Indeed, silver issues post-dating Nero are very few in the Indian sub-continent—a coin of Vespasian from Jabalpur (Madhya Pradesh); 2 denarii of Hadrian (117-138 C.E.)—1 from the Pakli (Pakistan) and the other from the Laccadive hoard—and a few more finds.

Finds of first century Roman base metal coins are very few in India. But the number of such coins gradually increases during the subsequent centuries. By the fourth-fifth centuries C.E., the majority of the Roman coins reaching India are of copper.

One could trace a subtle link between the metal of the Roman coins of different periods in India and the type and quantity of Indian goods exported to Rome during those periods. In the first century C.E. when the volume of trade was very large and it mostly involved precious goods like gemstones and ivory, the use of copper coins in these 'high-value transactions' was not thought of. Thus, the Roman coins of this period found in India are of gold and silver. But from the end of the first century C.E. when the trade began to be gradually confined to non-luxury items such as cotton and pepper, there is a slow and steady increase in the number of Roman copper coins reaching India.

Slash marks and countermarks on the coins

One of the unusual features of the Roman coin finds in India is the presence, on some of the coins, of slash marks, generally 1 to 2mm long, effected by a knife or a chisel or a file. Such marks are totally absent on Roman coins found outside India including those reported from Sri Lanka, Africa and Central Asia. There are over 20 well-recorded slashed coin finds in India. There have been reports of a few more slashed coins, specially the denarii, but neither the exact find-spot nor the circumstances of these finds are known.

The site-by-site distribution of the known slashed coins is as follows:

<u>Site</u>	<u>Number of slashed coins</u>
Tamilnadu:	
Kaliyampattur	4
Madurai Hills	5
Pudukkottai	461
Tondamanathan	2
Soriyapattu	3

<u>Site</u>	<u>Number of slashed coins</u>
-------------	--------------------------------

Andhra Pradesh:

Akkanpalle	1505
Alluru	1
Gumada	8+
Nagavarappupadu	58
Nandyal	17
Nasthullapur	15
Peddabankur	2+
Peddakodamagundla	3
Penuganchiprolu	<200
Vinukonda	2

Kerala:

7

Eyyal

Karnataka:

Belgaum	30+
---------	-----

Maharashtra:

Adam	11
------	----

Uppavahr	1
----------	---

Madhya Pradesh:

Chakherbedha	1
--------------	---

Total	2336+
--------------	--------------

There have been a number of opinions regarding the significance of the slash marks on the Roman coins in India. G.F.Hill was the first to comment on

the purpose of the slashes in his famous paper on the Pudukkottai hoard of Roman aurei, published in the *Numismatic Chronicle* in 1898. Later many other scholars have put forth various theories regarding the purpose of these marks. Most of the scholars opine that the slashes were intended to cancel out the issuing authority before these coins were used as money in India. A few scholars have also stated that the slashes may be the result of Muslim or Buddhist iconoclasm. But none of these theories are convincing because of the extremely limited occurrence of the phenomenon. Future discoveries and studies alone may enable us to know the precise purpose of these chisel cuts.

Yet another peculiar characteristic of the Roman coin finds in India is the occurrence of countermarks on some of the coins. The marks include dots, crescents, circles, lines and letters of the Roman alphabet such as C, S, etc. All the marks are generally extremely small in size.

Most of the earlier scholars either did not keenly observe these countermarks or have chosen to ignore them. Indeed, it is surprising that many coins belonging to well-known hoards which have been repeatedly photographed and published bear interesting countermarks which have never been studied or described. And the tiny marks are rarely discernible on the published photographs of these coins. There are instances, specially in the case of worn silver coins, where it has been very difficult to ascertain whether some of the minute lines, curves and dots are actually countermarks or mere accidental scratches. Also the countermarks are sometimes partially obliterated by the slash marks.

There are around 1500 well-attested countermarked coins spread over 16 sites. The site-wise break-up of the countermarked coins is given below:

<u>Site</u>	<u>Number of countermarked coins</u>
Tamilnadu:	

Roman Coin Finds In South India - An Interpretation From
The Viewpoint Of Roman Numismatics And Economy

Akhilandapuram	3
Budinatham	200+
Koneripatti	3+
Pudukkottai	1
Madurai(?)	1

Kerala:

Nedumkandam	1
Maluvally	1

Indian Islands:

Kadamat Island	2
<i>Kaamataka:</i>	
Yeshwantpur	1

Andhra Pradesh:

Akkanpalle	1279
Daarmavaripalem	1
Kudaavelli	2
Nagavarappupadu	10+
Nasthullapur	4
Peddabankur	4+

Uttar Pradesh:

?	1
Total	1514+

Many of the countermarked issues occur in hoards. In Tamil Nadu, the largest and most interesting hoard containing countermarked coins is the one found at Budinatham (also called VadaBudinatham) near Udumalpet, in February, 1946. The hoard contains 1408 denarii. Some of the countermarks seen on a few of these coins are Roman letters or legends. The hoard is in the Government Museum in Madras (Chennai). A detailed catalogue of this hoard is nearing completion.

Roman coins bearing countermarks are also known in European sites. In Europe, during the Julio-Claudian period (Augustus to Nero) and upto the opening months of Vespasian's reign (69-79 C.E.), the practice of countermarking brass and copper coins was quite widespread. The emperor Vespasian affixed countermarks on some of the Republican and early imperial silver coins also. These countermarks, mostly in the form of short Latin legends, usually served one of the following three distinct purposes:

1. To extend the area in which the coin would be accepted as currency
2. To prolong the useful life of a coin which had been in circulation over an extended period of time
3. To denote that a new authority was converting someone else's coin onto its own.

But the countermarks seen on the Roman coins in India are very different from those seen on the above coins in Europe. While the marks in Europe are mainly Latin legends, the majority of the marks in India are geometric designs, lines and dots. Again, in Europe, the marks are mainly seen on base metal and silver coins while in India, the marks usually occur on silver and to a lesser extent, on gold coins also. Thus, one may conclude that the marks on the coins in India were effected after they reached this land. The precise purpose or significance of these countermarks on the coins in India is not clear. The possibility of these marks being effected to test the quality of the metal is ruled out because many of the marks are intricate floral or geometric designs. The countermarks may be bankers' marks or ownership marks. The necessity of

stamping one's ownership mark would arise only on specific occasions when the coins (wealth) of different individuals are being handed over for safe custody to a single money-lender or banking institution. Significantly, early Indian epigraphs allude to such deposition of coins with corporate bodies.

Imitation coins

Imitations of Roman coins have been reported from nearly 30 sites, all confined to specific regions of western and southern India. It is plausible that a few more published finds also contained imitations that were never identified and recorded. The imitations occur in gold, silver, copper and lead. The copper imitations, though confined to the smallest number of sites, are the most numerous.

The earliest imitations in India are the silver copies of the common types of Augustus and Tiberius. Gold imitations of the Julio-Claudian period are extremely scarce. The imitations of the late first and the second centuries C.E. are, however, all of gold and they represent a wide range of types. The copper imitations are mostly of the fourth- fifth centuries C.E. and they often occur in association with the genuine late Roman and Byzantine coppers at Madurai and Karur in Tamil Nadu.

Like the genuine Roman coins, many of the known Roman imitation issues in India seem to have been die-struck. The existence of a possible die-link between the various imitation coins of the Gumada hoard (Andhra) has also been suggested. We have, however, also observed a few imitations produced by the casting process.

It was originally believed that plated Roman coins—base metal coins plated with a silver or gold coating,—mainly the Gaius and Lucius Caesares reverse type denarii of Augustus, were specially manufactured for the India trade. It has, however, now been confirmed that the majority of the denarii, including those which have been identified as imitations, in India, are not plated issues. But the archaeological excavations at Peddabankur (Andhra) have brought to light, in stratified deposits, 8+ worn imitation Roman silver coins, some of them

plated ones. Plated aurei too are extremely scarce both in India and elsewhere, the only well-attested find of such a coin being the one from Kondapur (Andhra). It has been opined that this coin is artistically superior to most of the other Roman imitations in India.

It would now be relevant to note a few important characteristics pertaining to the gold and silver Roman imitations in India. Taking first the silver imitations, it may be said that all the known denarii copies belong to the first century C.E. and are almost identical to the original ones in size, thickness, weight and the purity and colour of the metal. Apparently, the maker of the imitations has tried his level best to reproduce all the features of the original coins on the copies. But he was incapable of correctly reading the legends on the genuine coins and these accounts for the few mistakes in the inscriptions on the copies. The main point of difference, between the genuine and the imitation denarii, however, is that the figures and devices on the latter are artistically of a lower standard than those on the former. The reason for this may again be precisely due to the fact that the manufacturers of these copies, being ignorant of Roman mythology and art, would have, not surprisingly, portrayed the Roman rulers and divinities in a comparatively crude fashion.

A few attempts to compare the imitation denarii finds in India and those reported from Europe have been made but there is no unanimity of opinion regarding the artistic value of the Indian imitations vis-a-vis those reported from the Danubian region and elsewhere. There have been opinions both for and against the theory that the denarii copies in India are artistically superior than those reported from the regions within the Roman empire. In any case, it is clear that the denarii copies in India differ from those discovered elsewhere with regard to weight and also the metallic composition.

The general characteristics of the imitation Roman gold coins in India are a striking contrast to those of the denarii copies in this country. Unlike the silver imitations, atleast a few of the gold copies in India are totally different from the original Roman gold coins in size, fabric and weight. It is also pertinent to note that although the legends of both the gold and silver imitations are garbled, the

legends on the denarii copies can atleast be read and understood and can be matched with the legends on the corresponding genuine denarii. But in the case of the majority of the gold imitations, the legends on them hardly convey any meaning and hence, cannot be unequivocally matched with the legends on any of the original Roman issues. This is most startlingly illustrated in the imitation aurei where the obverse legends consist of mere tiny horizontal strokes and circles or dots which have been engraved merely to indicate the presence of 'legends' which do not convey any meaning whatsoever. Again, unlike the denarii copies, the gold imitations often exhibit known obverse and reverse types but in 'impossible' combinations. Example: An imitation aureus discovered in South India, bearing an obverse type of Septimius Severus (193-211 C.E.) and a reverse type of Marcus Aurelius (161-180 C.E.).

Compared to the silver copies, the gold imitations are more widespread. Again, while all the denarii imitations in India are of the first century A.D, the gold copies range in date from the first century A.D to the fourth century C.E. and even later. Not surprisingly, the stylistic features and the artistic value of all the known silver imitations are almost identical whereas the gold copies, belonging to varied periods and regions, exhibit wide variations in style.

One is able to observe a direct correlation between the artistic merit of the Indian imitations and that of the corresponding genuine Roman gold and silver issues. For instance, we know that the original Roman gold coins were artistically of a higher standard than the genuine denarii. The known gold copies are also certainly of a superior level of artistic workmanship than the denarii copies. Similarly, it is well-known that compared to the obverse, the reverse motifs on the genuine Roman coins are treated with less care by the minter because a mediocre standard of technical achievement was considered sufficient for the reverse themes and hence, the reverse figures and devices are generally not as aesthetically appealing as the royal bust on the obverse. The same phenomenon is discernible in the case of the Indian imitations too. Also, the makers of the imitations always reproduced complete or full obverse or reverse types on the copies and did not, under any circumstances, add or alter

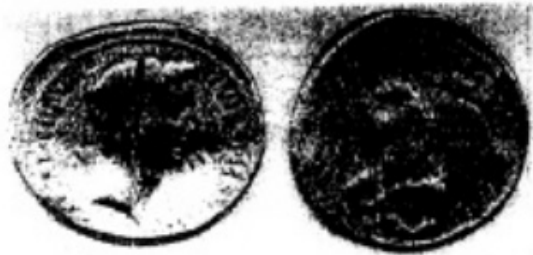
the decorative features and/or attributes pertaining to any of the figures appearing on the genuine coins.

Coming to the copper imitations, these form a distinct group. The dumpy figures on the worn tiny copper copies are often partially out of the flan. In many instances, the copper copies are strikingly similar to their genuine counterparts. Hence, it is very difficult to distinguish the copper copies from the original copper coins.

All the Roman imitation coins in India, whether in gold, silver or copper, appear to have been produced in India. The Roman coins circulated as money in certain parts of South India and whenever there was a shortfall in the supply of the genuine coins from the West, imitations were manufactured. Interestingly, many of these imitations like the genuine Roman coins found in India, feature slash marks and countermarks.

卷之六

Map 1: Distribution pattern of Roman Coin Finds in the Indian Sub continent



Augustus aureus. Obverse: Royal bust. Reverse: Eagle on the wreath. Coin bearing slash mark and two countermarks on the obverse Pudukottai Hoard. Tamil Nadu.

Courtesy: The British Museum, London



Tiberius aureus, Obverse: Royal bust. Reverse: Livia on the chair. Mandyal hoard, Andhra Pradesh

Courtesy: The Government Museum, Chennai



Nero aureus, Obverse: Royal bust. Reverse: Oak wreath, Mandyal hoard, Andhra Pradesh

Courtesy: The Government Museum, Chennai

SELECT BIBLIOGRAPHY

Abbreviations used in the Bibliography:

AI: Ancient India

JNSI: Journal of the Numismatic Society of India.

JRAS: Journal of the Royal Asiatic Society

MCS: Madras Coin Society.

NC: Numismatic Chronicle.

SSIC: Studies in South Indian Coins.

TNSDA Tamilnadu State Department of Archaeology

Aravamuthan, T.G., *Catalogue of the Roman and Byzantine Coins in the Madras Government Museum* (Chennai, 1942, reprinted 2002).

Berghaus, P., "An Indian Imitation of an Augustan Denarius" in D.C. Bhattacharyya and Devendra Handa eds., *Prechi-Prabhe, Perspectives in Archaeology*, Bangalore in Honour of Dr. B. B. Lal (New Delhi, 1989) pp. 101-104.

Berghaus, P., "Roman Coins From India and Their Imitations", in A.K. Jha ed., *Coinage, Trade and Economy (3rd International Colloquium, January 8th-11th, 1991)* (Nashik, 1991) pp. 108-21.

Berghaus, P., "Three Denarii of Tiberius From Arikamedu" in D.W. MacDowall, Savita Sharma and Sanjay Garg eds., *Indian Numismatics, History, Art and Culture- Essays in Honour of Dr. P.L. Gupta, I* (Delhi, 1992) pp. 95-98.

Berghaus, P., "Roman Aurei from Kambalam, Ernakulam District, Kerala", *SSIC* III (1993) pp. 29-42.

Bolin, S., *State and Currency in the Roman Empire to 300 AD* (Stockholm, 1958).

Burnett, A., "Roman Coins From India and Sri Lanka", in O. Bopearachchi and D.P.M. Weerakkody eds., *Origin, Evolution and Circulation of Foreign Coins in the Indian Ocean* (New Delhi, 1998) pp. 179-89.

Caldwell, R., *A Description of Roman Imperial Aurei Found Near Calicut* (Trivandrum, 1851).

Champakalakshmi, R., *Trade, Ideology and Urbanization: South India 300 B.C.E. to C.E. 1300* (New Delhi, 1996).

Chattopadhyaya, B.D., *Coinage and Currency Systems in South India c.C.E. 225-1300* (New Delhi, 1977).

Cimino, R.M., and F. Scialpi, *India and Italy - Exhibition Organized in Collaboration With the Archaeological Survey of India and the Indian Council for Cultural Relations* (Rome, 1974).

Devaraj, D.V., "A Roman Terracotta Pendant From Sannati in Karnataka", *SSIC* VII (1997) pp. 45-48.

Devasahayam, N., "Roman Jewellery from Vellalore Site during the Sangam Period", *Lalit Kala* 21 (1985) p. 53.

- De Puma, Richard Daniel**, "The Roman Bronzes From Kolhapur" in V.Begley and Richard Daniel De Puma eds., *Rome and India: The Ancient Sea Trade* (Madison, 1991)pp. 82-112.
- De Romanis, Federico and A. Tchernia eds.**, *Crossings—Early Mediterranean Contacts With India* (New Delhi, 1997)..
- Ghosh, N.C., and K. Ismail**, "Two Foreign Gold Coins From Excavation at Kudavelli, District Mahabubnagar, Andhra Pradesh", *JNSI* XLII (1980)pp. 11-17.
- Gobl, R.**, "The Roman-Kushanian Medallion in the British Museum", *JNSI* XXXVIII 1 (1976)pp. 21-26.
- Gopal, R.**, "A Greek Copper Coin From Hassan", *SSIC* III (1993)pp. 51-52.
- Gupta, Chandrashekhar**, "Foreign Denominations of Early Indian Coins" in A. M. Shastri ed., *Foreign Elements in Indian Indigenous Coins* (Varanasi, 1982)pp. 109-23.
- Gupta, P.L.**, *Roman Coins From Andhra Pradesh* (Hyderabad, 1965).
- Gupta, P.L.**, "Kushana-Murunda Rule in Eastern India- Numismatic Evidence", *JNSI* XXXVI (1974)pp. 25-53.
- Gupta, P.L.**, "British Museum Romano-Kushana Medallion: Its Nature and Importance", *JNSI* XXXVIII 2 (1976)pp. 73-81.
- Gupta, P.L.**, "Coins in Rome's India Trade" in A.K. Jha ed., *Coinage, Trade and Economy* (3rd International Colloquium, January 8th-11th, 1991) (Nashik, 1991)pp. 122-37.
- Hill, G.F.**, "Roman Aurei From Pudukota, South India", *NC* (3rd series) XVIII (1898)pp. 304-20.
- Hill, G.F.**, "Untitled Note", *NC* (3rd series) XIX (1899)p. 82.
- Hill, P.V.**, "A Puzzling Aureus of Septimius Severus From India", *Spink Numismatic Circular* XCII (1984)p. 259.
- Hill, P.V.**, "Second Thoughts on the Severan Aureus From India", *Spink Numismatic Circular* XCII (1984)p. 323.
- Krishnamurthy, R.**, "Seleucid Coins From Karur", *SSIC* III (1993)pp. 19-28.
- Krishnamurthy, R.**, "Coins From Phoenixia Found at Karur, Tamilnadu", *SSIC* IV (1994)pp. 19-27.
- Krishnamurthy, R.**, *Late Roman Copper Coins From South India: Karur and Madurai* (Madras, 1994).
- Krishnamurthy, R.**, "Coins From Greek Islands, Rhodes and Crete Found at Karur, Tamilnadu", *SSIC* V (1995)pp. 29-36.
- Krishnamurthy, R.**, "A Roman Coin Die From Karur, Tamilnadu", *SSIC* VI (1996)pp. 43-48.
- Krishna Sastry, V.V.**, *Roman Gold Coins—Recent Discoveries in Andhra Pradesh* (Hyderabad, 1992).
- Kulkarni, P.P.**, "Early Roman Coins in India", *JNSI* XLVI (1984)pp. 37-38.

the Interrelations Between India, Arabia and the Eastern Mediterranean (New Delhi, 1995)pp. 97-114.

Rodewald,C., *Money in the Age of Tiberius* (Manchester, 1976).

Sarma,I.K., "Roman Coins From Andhra Pradesh: Their Contexts, Chronology and Cultural Significance", *SSIC II* (1992)pp. 35-50.

Sarma,I.K., "A Critical Study of the Numismatic Evidences From Nagarjunakonda Excavations", *SSIC IV* (1994)pp. 63-78.

Sathyamurthy,T., *Catalogue of Roman Gold Coins (In the Collections of Department of Archaeology, Kerala)* (Thiruvananthapuram, 1992).

Sathyamurthy,T., "Numismatic Study of Roman Gold Coins Found in Tamilnadu", *SSIC VII* (1997)pp. 48-55.

Sear, David R., *Roman Coins and Their Values, Volume 1, The Republic and the Twelve Caesars 280 BC-AD 96*, Spink and Son Ltd., London, 2006.

Sewell,R., "Roman Coins Found in India", *JRAS* (1904)pp. 591-637.

Shastri,A.M., "Imperial Roman Coins in Early Deccanese Inscriptions", *SSIC II* (1992)pp. 77-87.

Shastri,A.M., "Kondapur: A Satavahana Silver Coins Mint", *SSIC III* (1993) pp.81-85.

Sidebotham,S.E., "Ports of the Red Sea and the Arabia-India Trade" in V.

Begley and Richard Daniel De Puma eds., *Rome and India: The Ancient Sea Trade* (Madison, 1991)pp. 12-38.

Sridhar, T.S., (ed) "Alangankulam Excavation report", TNSDA-2002.

Sridhar, T.S., (ed) "Archaeological excavation of Tamil Nadu", TNSDA-2002.

Brivastava,B., "Economic Significance of Roman Coins Found in India", *JNSI* XXVI (1964)pp. 222-27.

Suresh,S., "Roman Vestiges in Kanchi" in Nanditha Krishna ed., *Kanchi - Heritage of Art and Religion* (Madras, 1992)pp. 56-61.

Suresh,S., *Roman Antiquities in Tamilnadu* (Madras, 1992)

Suresh,S., "Early Roman Finds in Madras City" in G.J.Sudhakar ed., *Aspects of Madras - A Historical Perspective* (Madras, 1993)pp. 13-16.

Suresh,S., "Recent Archaeological Discoveries and Studies in Tamilnadu", *Quarterly Bulletin of the School of Historical and Cultural Studies, Calcutta* I 3&4 (1994-95)pp.11-16.

Suresh,S., "Review of :F.R.Allichin et al.: *The Archaeology of Early Historic South Asia: The Emergence of Cities and States*", *The Book Review* XX 5 (1996)p. 13.

Suresh,S., "Roman Coins Found in India: A Study of the Countermarks", Paper presented at the international Seminar on *Trade and Economy of Ancient Sri*

- MacDowall, D.W., and N.G. Wilson, "The References to the Kusanas in the Periplus and Further Numismatic Evidence for its Date", NC (7th series) X (1970) pp. 221-40.
- MacDowall, D.W., "Trade on the Maritime Silk Route- The Evidence of Roman Coins Found in India", Paper presented at the International Seminar on India and the Roman World Between the 1st and 4th Centuries C.E. (Madras, 1990).
- MacDowall, D.W., "Indian Imports of Roman Silver Coins", in A.K. Jha ed., *Coinage, Trade and Economy (3rd International Colloquium, January 8th - 11th, 1991)*, (Nashik, 1991) pp. 145-63.
- MacDowall, D.W., "The Evidence of the Gazetteer of Roman Artefacts in India" in H.P. Ray and Jean-Francois Salles eds., *Tradition and Archaeology- Early Maritime Contacts in the Indian Ocean* (New Delhi, 1996) pp. 79-95.
- Mattingly, H., *Coins of the Roman Empire in the British Museum, Volume I: Augustus to Vitellius* (London, 1965).
- Nagaswamy, R., "Alagankulam: An Indo-Roman Trading Port" in C. Margabandhu, K.S. Ramachandran, A.P. Sagar and D.K. Sinha eds., *Indian Archaeological Heritage - Shri K.V. Soundara Rajan Festschrift I* (Delhi, 1991) pp. 247-54.
- Narasimha Murthy, A.V., "A Roman Coin Mould From Banavasi", JNSI XLVI (1984) pp. 45-46.
- Narasimha Murthy, A.V., and D.V. Devaraj, "A Roman Coin Mould From Talkad Excavations", SSIC V (1996) pp. 69-82.
- Raman, K.V., "Roman Contacts With Tamilnadu (Southeastern India): Recent Findings", Paper presented at the International Seminar on India and the Roman World Between the 1st and 4th centuries C.E. (Madras, 1990).
- Raman, K.V., "Further Evidence of Roman Trade From Coastal Sites in Tamilnadu", in V. Begley and Richard Daniel De Puma eds., *Rome and India: The Ancient Sea Trade* (Madison, 1991) pp. 125-33.
- Raman, K.V., "Roman Coins From Tamilnadu", SSIC II (1992) pp. 19-34.
- Raschke, M.G., "New Studies in Roman Commerce With the East", *Aufstieg und Niedergang der römischen Welt* 2.9.2 (1978) pp. 604-1378.
- Ray, H.P., "The Yavana Presence in Ancient India", *Journal of the Economic and Social History of the Orient* 31 (1988) pp. 311-25.
- Ray, H.P., "The Yavana Presence in India" in Marie-Francoise Boussac and Jean-Francois Salles eds., *Athens, Aden, Arikamedu—Essays on the Interrelations Between India, Arabia and the Eastern Mediterranean* (New Delhi, 1995) pp. 75-95.
- Ray, H.P., "A Resurvey of 'Roman' Contacts With the East" in Marie-Francoise Boussac and Jean-Francois Salles eds., *Athens, Aden, Arikamedu—Essays on*

Lanka, India and South-East Asia: Archaeological and Literary Evidence
(Colombo, 1999).

Suresh, S., "Roman Denarii Hoard From Koneripatti, Tamilnadu", *The Quarterly Review of Historical Studies*, XXXIX, 1&2 (1999) pp.1-6. Same paper also published in S. Rajagopal ed., *Kaveri-Studies in Epigraphy, Archaeology and History (Prof. Y. Subbarayalu Felicitation Volume)* (Madras, 2001)pp. 267-72.

Suresh, S., "Numismatic Studies—New Methodologies and Approaches (Summary of Presidential Address delivered at the Seminar of the Madras Coin Society)" *MCS. Chennai—Special Bulletin VIII* (2001) pp 1-3.

Suresh, S., "Religion and Trade: Spread of Jainism In Ancient AndhraDesa and Tamilakam", in Haripriya Rangarajan, G.Kamalakar and A.K.V.S. Reddy eds., *Jainism—Art, Architecture, Literature and Philosophy* (Delhi, 2001) pp.321-27

Suresh, S., "Countermarks on Roman Coins Found in India: Context, Chronology and Significance", *Indian History Congress—Proceedings of the LXII Session*, (2002) pp. 976-85.

Suresh, S., *Symbols of Trade: Roman and Pseudo-Roman Objects Found in India* (New Delhi, 2004).

Suresh, S., "Muziris to Arikamedu: Roman Trails in South India", Paper presented at the international Conference on *Arikamedu Archaeological Heritage: Cultural and Technological Valorisation*, (Pondicherry, 2004);

Suresh, S., "Early Roman Trade With South Asia: A Study Based on Recent Explorations in South India and Sri Lanka", Paper presented at the international Seminar on *Tamilnadu and Sri Lanka: New Evidence on Maritime and Inland Trade* (Madras, 2004).

Suresh, S., "Counter-marks of Buddhist Symbols on the Roman Coins Found in Andhra Desa", in G.Kamalakar and M.Veerender, eds., *Buddhism—Art, Architecture, Literature and Philosophy, Volume II* (Delhi, 2005) pp.481-86.

Suresh, S., "Epigraphical Evidences for the Roman Trade and Roman Artifacts in Ancient India—With Special Reference to South India", Paper presented at the Second Symposium on *Tamil Epigraphy: Historical Sources and Pluridisciplinary Perspectives*, (Paris, 2006).

Suresh, S., "Numismatic Art: A Survey With Special Reference to South India", in P. Chenna Reddy ed., *Mahasenasiri:—Riches of Indian Archaeological and Cultural Studies (A Felicitation Volume in Honour of Dr. I. K. Sarma) II*, (Delhi, 2006) pp.525-28.

Suresh, S., *Arikamedu: Its Place in the Ancient Rome-India Contacts* (New Delhi, 2007).

Suresh, S., "Two Unpublished Roman Aurei from Pudukkottai Hoard, Tamil Nadu", *SSIC XVII* (2007) pp.33-37.

- Suresh, S., "The British Museum Collection of Roman Republican Coins Found in India", *SSIC XVIII* (2008) pp.20-24.
- Suresh, S., "A Rare Roman Republican Coin Found in India", *SSIC XIX* (2009) pp.32-34.
- Suresh, S., "Two Unpublished Roman Denarii Found at Kodumanal, Tamil Nadu", *SSIC, X*; 2010, pp.37-39.
- Suresh, S. and M.Nambirajan, "The Single Surviving Roman Coin From a Rare Hoard in Goa", *SSIC, XX*, 2010, pp.44-48.
- Theobald, W., "Note on Mr. G.F.Hill's Theory Regarding the Defacement of Roman Aurei From Pudukota", *NC (3rd series) XIX* (1899)p. 81.
- Turner, E., *Madras Government Museum. Coins- Catalogue no. 2: Roman, Indo-Portuguese and Ceylon* (Madras: 1894)
- Turner, P.J., *Roman Coins From India* (London, 1989).
- Walburg, R., "Late Roman Copper Coins From Southern India" in A.K.Jha ed., *Coinage, Trade and Economy, 3rd International Colloquium, January 8th-11th, 1991* (Nashik, 1991)pp. 164-67.
- Warmington, E. H., *The Commerce Between the Roman Empire and India* (Cambridge, 1928, reprinted 974).
- Wheeler, R.E.M., A. Ghosh and Krishna Deva, "Arikamedu: An Indo-Roman Trading-Station on the East Coast of India", *AI 2* (1946)pp. 17-124.
- Wheeler, R.E.M., "Roman Contact With India, Pakistan and Afghanistan", in W.F.Grimes ed., *Aspects of Archaeology in Britain and Beyond: Essays Presented to O.G.S.Crawford* (London, 1951)pp. 345-81.
- Wheeler, R.E.M., *Rome Beyond the Imperial Frontiers* (London, 1954).







UNIVERSITY OF CALIFORNIA

1917

UNIVERSITY OF CALIFORNIA

LIBRARY

UNIVERSITY OF CALIFORNIA

LIBRARY

